

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
COMBINED DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**USE OF DEXTRAN AND OTHER POLYSACCHARIDES TO IMPROVE MUCUS CLEARANCE**

---

the specification of which \_\_\_\_\_

(check one)

☒ is attached hereto.

☐ was filed on \_\_\_\_\_

as U.S. Application Serial No. \_\_\_\_\_.

☐ was filed on \_\_\_\_\_

as PCT International Application No. PCT / \_\_\_\_\_.

and (if applicable) was amended on \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information known to me which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §§ 1.56(a) and (b), which state:

"(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application,
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

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(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability."

I hereby claim foreign priority benefits under 35 United States Code, § 119 and/or § 365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate filed by me or my assignee disclosing the subject matter claimed in this application and having a filing date (1) before that of the application on which priority is claimed, or (2) if no priority claimed, before the filing of this application:

PRIOR FOREIGN APPLICATION(S)

<u>Number</u>	<u>Country</u>	<u>Filing Date</u> <u>(Day/Month/Year)</u>	<u>Date First</u> <u>Laid-open or</u> <u>Published</u>	<u>Date</u> <u>Patented</u> <u>or Granted</u>	<u>Priority</u> <u>Claimed?</u>
2,209,342	Canada	June 30, 1997			Yes

I hereby claim the benefit under 35 United States Code, § 119(e) of any United States provisional application(s) listed below:

<u>Application Number</u>	<u>Filing Date</u>
	N/A

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

PRIOR U.S. OR PCT APPLICATION(S)

<u>Application No.</u>	<u>Filing Date</u> <i>(day/month/year)</i>	<u>Status</u> <i>(pending, abandoned, granted)</i>
		N/A

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment,

or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following patent agents with full power of substitution, association and revocation to prosecute this application and/or international application and to transact all business in the Patent and Trademark Office connected therewith:

W. Hugo Liepmann	Reg. No. 20,407	Jeremiah Lynch	Reg. No. 17,425
James E. Cockfield	Reg. No. 19,162	Lawrence E. Monks	Reg. No. 34,224
Thomas V. Smurzynski	Reg. No. 24,798	David A. Lane	Reg. No. 39,261
Ralph A. Loren	Reg. No. 29,325	Catherine J. Kara	Reg. No. 41,106
Thomas J. Engellenner	Reg. No. 28,711	Mark D. Russett	Reg. No. 41,281
Giulio A. DeConti, Jr.	Reg. No. 31,503	Scott D. Rothenberger	Reg. No. 41,277
Ann Lamport Hammitte	Reg. No. 34,858	Thomas P. Grodt	Reg. No. 41,045
Paul Louis Myers	Reg. No. 35,965	Linda M. Chinn	Reg. No. 31,240
Elizabeth A. Hanley	Reg. No. 33,505	Kevin J. Canning	Reg. No. 35,470
Michael I. Falkoff	Reg. No. 30,833	Ivana Maravic-Magovcevic	Reg. No. P43,338
John V. Bianco	Reg. No. 36,748	Faustino A. Lichauco	Reg. No. P41,942
Amy E. Mandragouras	Reg. No. 36,207	C. Eric Schulman	Reg. No. P43,350
Anthony A. Laurentano	Reg. No. 38,220	Jeanne M. DiGiorgio	Reg. No. P41,710
Jane E. Remillard	Reg. No. 38,872	Megan E. Williams	Reg. No. P43,270
Mark A. Kurisko	Reg. No. 38,944		

all of Lahive & Cockfield, LLP, 28 State Street, Boston, MA 02109; and

John R. Morrissey (Reg. No. 28,585)

Gunars Gaikis (Reg. No. 32,811)

Keltie R. Sim (Reg. No. 34,535)

Ronald D. Faggetter (Reg. No. 33,345)

Alistair G. Simpson (Reg. No. 37,040)

Yoon Kang (Reg. No. 40,386)

all of Smart & Biggar, 438 University Avenue, Suite 1500, Toronto, Ontario, Canada, M5G 2K8

PLEASE SEND CORRESPONDENCE TO:

Lahive & Cockfield, LLP  
28 State Street  
Boston, Massachusetts 02109-1775  
U.S.A.

Attention: P. Louis Myers, Ph.D.

Telephone: (617) 227-7400

Facsimile: (617) 742-4214

1) INVENTOR'S SIGNATURE: \_\_\_\_\_ Date: \_\_\_\_\_

Inventor's Name: MALCOLM KING  
(First) (Middle Initial) (Family Name)

Country of Citizenship: CANADA

Residence: 3328-116 STREET, EDMONTON, ALBERTA, CANADA T6I 3J2  
(City, Province, Country)

Post Office Address: \_\_\_\_\_

Post Office Address: \_\_\_\_\_

COPY

Patent  
Attorney's Docket No. 026579-308

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of )  
 )  
Malcolm King, et al. ) Group Art Unit: 1623  
 )  
Application No.: 09/052,614 ) Examiner: H. Lee  
 )  
Filed: March 31, 1998 )  
 )  
For: USE OF DEXTRAN AND OTHER )  
POLYSACCHARIDES TO IMPROVE )  
MUCUS CLEARANCE )

**REVOCATION AND NEW POWER OF ATTORNEY**  
**BY ASSIGNEES OF ENTIRE INTEREST**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

We, the University of British Columbia and the University of Alberta, are the joint assignees of the entire interest in the above-identified application by virtue of assignments from the inventors.

As the Assignees of the entire interest in the above-identified application, all powers of attorney previously given are hereby revoked, and Gerald F. Swiss, Esq., Registration No. 30,113, Leslie A. Mooi, Esq., Registration No. 37,047, and Leslie J. Boley, Esq., Registration No. 41,490 are hereby appointed to prosecute and transact all business in the U.S. Patent and Trademark Office connected with the above-identified application. The Assignees have reviewed documentary evidence of the chain of title from the original owners to the Assignees and have enclosed two statements under 37 C.F.R. § 3.73(b).

(10/97)

COPY

Revocation and New Power of Attorney

Application Serial No. 09/052.614

Attorney's Docket No. 026579-308

Page 2

Please direct all telephone calls and correspondence to:

Gerald F. Swiss, Esq.  
BURNS, DOANE, SWECKER & MATHIS, L.L.P.  
P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(650) 854-7400

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Name:

Title:

Company: University of British Columbia

Date: \_\_\_\_\_

October 4, 1999.

Signature: \_\_\_\_\_

Name:

Title:

Company: University of Alberta

LAINÉ WOOLLARD, B.Sc. (PHARM), LL.B.  
BARRISTER AND SOLICITOR, NOTARY PUBLIC  
INTELLECTUAL PROPERTY AND LEGAL MANAGER  
INDUSTRY LIAISON OFFICE, U OF A

COPY

Patent

Attorney's Docket No. 026579-308

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Malcolm King, et al. ) Group Art Unit: 1623  
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Assistant Commissioner for Patents  
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(10/97)

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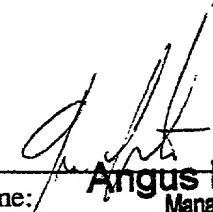
Revocation and New Power of Attorney  
Application Serial No. 09/052.614  
Attorney's Docket No. 026579-308  
Page 2

Please direct all telephone calls and correspondence to:

**Gerald F. Swiss, Esq.**  
**BURNS, DOANE, SWECKER & MATHIS, L.L.P.**  
**P.O. Box 1404**  
**Alexandria, Virginia 22313-1404**  
**(650) 854-7400**

Date: September 20, 1998

Signature: \_\_\_\_\_

  
Name: **Angus Livingstone**  
Title: **Managing Director**  
Company: **University - Industry Liaison Office**  
University of British Columbia

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: **University of Alberta**

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Approved for use through 09/30/2000. OMB 0651-0031  
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Attorney's Docket No. 026579-308

**STATEMENT UNDER 37 C.F.R. § 3.73(b)**

Applicant/Patent Owner: University of Alberta

Application No./Patent No.: 09/052,614 Filed/Issue Date: March 31, 1998

Entitled: **USE OF DEXTRAN AND OTHER POLYSACCHARIDES TO IMPROVE MUCUS  
CLEARANCE**

University of Alberta

(Name of Assignee)

a university

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is

1. ☐ the assignee of the entire right, title, and interest;
2. ☒ an assignee of an undivided part interest.

in the patent application/patent identified above by virtue of either:

- A. ☐ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☒ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: Malcolm King To: University of Alberta  
The document was recorded in the Patent and Trademark Office at  
Reel 9273, Frame 0913, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the PTO. See MPEP 302-302.8]

The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the assignee.

Date: October 4, 1999

[Signature]  
Signature

\_\_\_\_\_  
Typed or printed name

\_\_\_\_\_  
Title

LAINE WOOLLARD, B.Sc. (PHARM), LL.B.  
BARRISTER AND SOLICITOR, NOTARY PUBLIC  
INTELLECTUAL PROPERTY AND LEGAL MANAGER  
INDUSTRY LIAISON OFFICE, U OF A

(10/98)

COPY

ASSIGNMENT

WHEREAS, I, Malcolm King, whose full post office address is 3328-116 Street, Edmonton, Alberta T6J 3J2, Canada, have invented USE OF DEXTRAN AND OTHER POLYSACCHARIDES TO IMPROVE MUCUS CLEARANCE, for which application for a patent has been filed in the United States;

AND WHEREAS, The University of Alberta, whose full post office address is The Industry Liaison Office, 222 Campus Tower, 8625 - 112 Street, Edmonton, Alberta T6G 2E1, Canada, is desirous of acquiring an interest therein;

AND WHEREAS, the serial number and filing date of the application are as follows:

Serial No.: 09/052,614

Filing Date: March 31, 1998

NOW THEREFORE, in consideration of One Dollar (\$1.00), the receipt of which is hereby acknowledged, I, Malcolm King, by these presents do sell, assign and transfer all my right for the United States of America and all other countries foreign thereto, in and to said invention, as described in said application, unto The University of Alberta, said invention, said application, any other applications for Letters Patent for said invention, and all Letters Patent issuing from such applications, to be held and enjoyed by The University of Alberta, for their own use and behoof, and for their legal representatives, to the full and of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

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COPY

I, Malcolm King, undertake to sign such further documents to effect the aforesaid sale, transfer and assignment as may be required from time to time, without reimbursement, but at the expense of The University of Alberta.

EXECUTED at Edmonton, this 11 day of June, 1998.

  
Malcolm King

I, Gabriela Gruber, hereby declare that I was personally present and did see Malcolm King who is personally known to me to be the person named in the above assignment duly sign and execute the same.

  
(Signature of Witness)

91557-5 (YK:cl)  
4 June 1998

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COPY

Attorney's Docket No. 026579-308

**STATEMENT UNDER 37 C.F.R. § 3.73(b)**

Applicant/Patent Owner: University of British Columbia

Application No./Patent No.: 09/052,614 Filed/Issue Date: March 31, 1998

Entitled: **USE OF DEXTRAN AND OTHER POLYSACCHARIDES TO IMPROVE MUCUS CLEARANCE**

University of British Columbia

(Name of Assignee)

a university

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is

1. ☐ the assignee of the entire right, title, and interest;
2. ☒ an assignee of an undivided part interest.

in the patent application/patent identified above by virtue of either:

- A. ☐ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☒ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: David Speert To: University of British Columbia  
The document was recorded in the Patent and Trademark Office at  
Reel 9273, Frame 0944, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

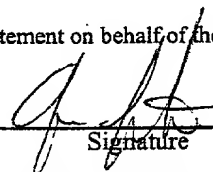
- ☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the PTO. See MPEP 302-302.8]

The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the assignee.

Date: SEP 20 1999

**Angus Livingstone**  
Managing Director  
University - Industry Liaison Office

  
Signature

Typed or printed name

Title

COPY

ASSIGNMENT

WHEREAS, I, David P. Speert, whose full post office address is 4616 W 2nd Avenue, Vancouver, British Columbia V6R 1L1, Canada have invented USE OF DEXTRAN AND OTHER POLYSACCHARIDES TO IMPROVE MUCUS CLEARANCE, for which application for a patent has been filed in the United States;

AND WHEREAS, The University of British Columbia, whose full post office address is University Industry Liaison Office, 2194 Health Sciences Mall, IRC 331, Vancouver, British Columbia V6T 1Z3, Canada, is desirous of acquiring an interest therein;

AND WHEREAS, the serial number and filing date of the application are as follows:

Serial No.: 09/052,614

Filing Date: March 31, 1998

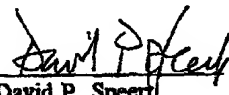
NOW THEREFORE, in consideration of One Dollar (\$1.00), the receipt of which is hereby acknowledged, I, David P. Speert, by these presents do sell, assign and transfer all my right for the United States of America and all other countries foreign thereto, in and to said invention, as described in said application, unto The University of British Columbia, said invention, said application, any other applications for Letters Patent for said invention, and all Letters Patent issuing from such applications, to be held and enjoyed by said University of British Columbia, for their own use and behoof, and for their legal representatives, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

09892636-062801

COPY

I, David P. Speert, undertake to sign such further documents to effect the aforesaid sale, transfer and assignment as may be required from time to time, without reimbursement, but at the expense of The University of British Columbia.

EXECUTED at <sup>Vancouver</sup>Edmonton, this 7<sup>th</sup> day of June, 1998.

  
David P. Speert

I, MAUREEN A. BEATTIE, hereby declare that I was personally present and did see David P. Speert who is personally known to me to be the person named in the above assignment duly sign and execute the same.

  
(Signature of Witness)

91557-5 (YK:cl)  
4 June 1998

T08290" 9E926860